

B. Purpose and Summary

3. Verizon asked me to calculate the additional number of hot cuts that Verizon would have to complete under three different scenarios. I am not predicting that these numbers will actually occur. In fact, in light of market developments I think it is unlikely that the number of hot cuts estimated here would materialize. In this sense, the numbers here are conservative, see Exhibits 1 and 2. The purpose of my testimony is to show the number of hot cuts Verizon would need to handle even in the unlikely event that substantial additional demand for hot cuts were to materialize. The accompanying declaration of Mr. Maguire (Attachment K) demonstrates Verizon's ability to scale its hot cut processes to meet those increases in hot cut volumes.

II. Recent Market Developments

A. Background

4. Market, technological and regulatory trends in local exchange competition have accelerated recently, and these developments will have a significant impact on the number of incremental hot cuts that CLECs might request in a post UNE-P environment. These developments include:

- Announcements by CLECs such as AT&T, Z-Tel, MCI and Sprint that they no longer view UNE-Ps as a viable business strategy;
- The increasing presence of intermodal competition from cable providers (using both circuit-switched and packet switched technology), VoIP and wireless providers; and
- The spread of commercial agreements between CLECs and ILECs regarding replacing UNE-P arrangements with similar arrangements governed by commercial contracts ("UNE-P Replacement Services").

5. All of these factors lower the number of incremental hot cuts that CLECs might request if the Commission finds that CLECs would not be impaired without access to unbundled local switching for mass-market customers. Nonetheless, my calculations are based upon several conservative scenarios that are likely to overstate the number of incremental hot cuts that Verizon may be asked to perform in a post-UNE-P environment. By modeling three conservative scenarios, I provide a range of incremental hot cuts that demonstrates the scalability of Verizon's hot cut processes.

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6. In the following section, I present a summary of these recent market developments and describe the current and likely future state of the telecommunications market. With information about intermodal competition and CLECs' business plan, we can better define the assumptions that go into the scenarios to be used to determine incremental hot cuts.¹

B. UNE-Ps are in Decline

7. Many CLECs have been quite explicit in expressing their view that, irrespective of the FCC final permanent rules, they no longer view UNE-Ps as a good strategy. For example, AT&T has recently announced it will be shifting its focus away from traditional consumer services and will no longer be investing to acquire new residential local and stand-alone long distance customers.² Instead AT&T is pursuing an aggressive VoIP strategy where it is trying to position itself to be a leader in that business. As AT&T's Chairman and CEO David Dorman stated, with respect to what this change means to its UNE-P business:

"I didn't want someone to come away with the idea that the interim rules, which we yet don't have, and the permanent rules would change our view about going forward in UNEP for acquisition. That chapter is closed. . . . [W]e are not going to revisit the UNEP platform discussion again."³

Z-Tel has also announced its intentions to no longer accept new orders for residential service and instead is pursuing VoIP beta testing to business customers and is expecting to offer residential VoIP services in some markets in the fourth quarter of 2004.⁴

¹ Verizon has submitted in this proceeding the Declaration of Michael K. Hassett and Vincent J. Woodbury (Attachment I) who describe in detail the recent technological and market developments that demonstrate that competitors are not impaired without access to unbundled switching. In addition, Verizon has submitted in this proceeding a 2004 *Fact Report* that also provides a detailed account of the competition that Verizon is facing.

² See, *AT&T Form 10-Q*, August 04, 2004, p. 13 & AT&T Press Release, *AT&T Announces Second-Quarter 2004 Earnings, Company To Stop Investing in Traditional Consumer Services; Concentrate Efforts on Business Markets*, July 22, 2004.

³ See, *Q2 2004 AT&T Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 072204aj.776 July 22, 2004.

⁴ See, Yankee Group, *The End of UNE Strengthens VoIP, Cable and RBOCs*, Kate Griffin, June 24, 2004, p. 3, ("Yankee Group June 24, 2004").

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8. MCI Inc. President, U.S. Sales & Service, Wayne Huyard has also recently acknowledged that “[W]e anticipate [] down siz[ing] our UNEP acquisition efforts significantly.”⁵ Similarly, Sprint Global Markets Group President Howard Janzen announced that Sprint has “essentially stopped [its] marketing efforts around the UNE-P.”⁶

9. Recent data from analysts as well as Verizon for the period January through June 2004 show that UNE-P migrations are flat and/or falling over this time period. Instead of UNE-P migrations growing over the next one to two years, we should expect to observe UNE-P migrations to be decreasing over this time period.

10. The view that UNE-P migrations—and thus eventually the total number of UNE-Ps in service—will likely decrease in the near term is consistent with recent analyst reports. For example, because of recent developments Smith Barney states:

“UNE-P market share, at roughly 12% of households, should decline over the next couple of years if the regulatory progress sustains itself, as customers migrate back to the incumbents or to alternative phone providers.”⁷

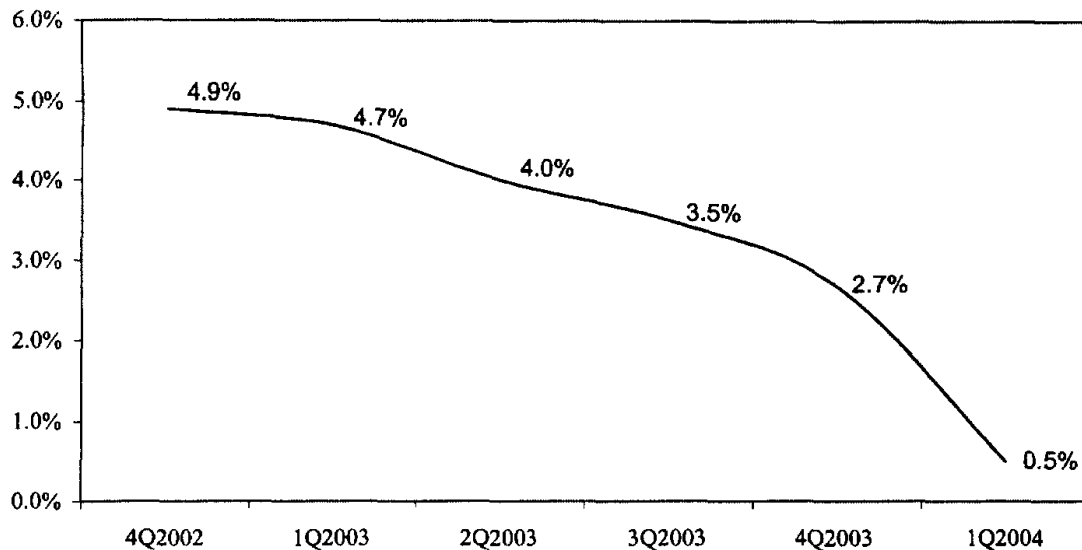
In the same report, data from third quarter 2003 to first quarter 2004 show that the rate of growth of UNE-P lines has slowed dramatically from approximately 2.8% in the third quarter of 2003 to close to 0.5% in the first quarter of 2004. The 0.5% growth in the first quarter of 2004 is lowest rate on record since 2001. Figure 1 below shows the growth of UNE-P lines in the U.S. from the fourth quarter of 2002 to the first quarter of 2004. As can be seen, UNE-P migrations have slowed throughout the time period and especially since the third quarter of 2003.

⁵ See, *Q2 2004 MCI INC Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 080504aa.768, Aug. 5, 2004.

⁶ See, *Q2 2004 Sprint Earnings Conference Call – Final*, FD (Fair Disclosure) Wire, Transcript 072104at.750, July 21, 2004.

⁷ See, Citigroup Smith Barney, *Second Quarter Preview: Wireless to Stay in Spotlight*, Michael Rollins, et al., July 20, 2004, p. 28 (“*Smith Barney July 20, 2004*”).

Figure 1: Annual Growth of UNE-P Lines 4Q 2002 - 1Q 2004



Source: Smith Barney July 20, 2004 Report

11. A recent report by Deutsche Bank Securities also predicts a reduction in the number of UNEs that the major ILECs will provide in the near term.⁸ For example, for Verizon Communications, Deutsche Bank predicts that after several years of robust growth, UNEs will decline beginning in 2004 with the number of UNEs declining by almost 20% by the end of 2006 compared to the end of 2004.

C. VoIP and Cable Telephony

12. Intermodal competition is a key reason why the demand for UNE-Ps, and thus for incremental hot cuts, is likely to decrease significantly in the near term. Intermodal competition includes voice telephone services from cable companies—who offer voice telephony through circuit-switch technology and through packet-switches—and standalone VoIP providers as well as competition from wireless and other providers. These competitors offer and provide services to their customers using an array of different technologies that bypass the ILECs' loops and switches, thus reducing the demand for incremental hot cuts in a post UNE-P world.

⁸ See, Deutsche Bank Securities Inc., *US Telecom Data Book – 2Q04*, August 2004.

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13. Voice services over packet-switched broadband networks are growing rapidly and are forecasted to become a major alternative to the ILECs' voice telephony business. VoIP services are provided by cable telephone companies—who bundle voice services with video and broadband data services into an attractive package—and by standalone providers such as Vonage, VoicePulse and Packet8. The incremental costs of adding voice service over a broadband connection are quite low, permitting cable companies to offer the service at very attractive prices.

14. Currently, approximately 90 percent of U.S. households can obtain a broadband connection from a provider other than their ILEC.⁹ Experts predict that VoIP services will grow rapidly over the next several years. For example, a June 2004 Yankee Group Report includes a forecast of close to 1 million VoIP customers by year-end 2004 with that figure almost tripling by year-end 2005.¹⁰ The Yankee Group forecast is fairly consistent with earlier forecasts put out by JP Morgan (1 million in 2004 and 3 million in 2005) and somewhat more aggressive than a Kagan Report (0.4 million in 2004 and 1.9 million in 2005) that was based on January 2004 forecast.¹¹

15. The Declarations of Messrs. Hassett and Woodbury (Attachment I) provide detailed discussions of the cable competition that Verizon is facing as does the *UNE Fact Report 2004*. Among the major findings from these reports are:

- Cable companies are aggressively pursuing the VoIP business with companies such as Cablevision, Time Warner, Cox, and Charter—which serve approximately 45 million homes—all already offering commercial VoIP services to customers and all with plans of widespread deployment throughout the remainder of their territories.¹²
- The largest cable operator, Comcast, with 40.3 million homes passed, plans to upgrade half of homes passed by the end of 2004 to provide VoIP service, and to upgrade 95 percent of homes passed by the end of 2005.¹³

⁹ See, 2004 Fact Report, p. II-2 citing the National Cable & Telecommunications Association and Bernstein Research Call.

¹⁰ See, Yankee Group, *Despite Uncertainty, Leading Telephone Industry Players Commit to Mass-Market VoIP Deployment*, Kate Griffin, June 2004, p. 9 & Exhibit 9.

¹¹ See, 2004 Fact Report, p. II-9 at Table 3.

¹² See, *id.* at II-5, Table 2 & II-7.

¹³ See, *id.* at II-5, Table 2 & II-7.

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- The take rates of customers who have the option of selecting VoIP from their cable companies are impressive. For example, in Portland, Maine, Time Warner Cable has gained 20,000 VoIP lines since the service was introduced last year and has a 14% share of homes that are VoIP-enabled.¹⁴ In Raleigh, Time Warner Cable has acquired 20,000 customers since its January 2004 launch.¹⁵ In Roanoke, Cox Cable's first VoIP market, Cox reports penetration ramping up as quickly as in markets where Cox offers circuit-switched service; in these markets Cox penetration is averaging 20 percent and rises as high as 55 percent.¹⁶

16. In addition to a VoIP strategy, cable companies also offer circuit-switched telephony to about 15 percent of all U.S. households and among those households 1 in 5 already subscribe.¹⁷ While cable companies are likely to focus more heavily on VoIP and packet switching in the future, the fact that there are currently millions of cable telephony customers using this technology means that cable companies have gained valuable experience in the telecommunications business that they can leverage successfully in a packet-based world.

17. Some of the major CLECs are also aggressively pursuing a VoIP strategy, including AT&T, Covad, and Z-Tel.¹⁸ As I explained above, these companies are abandoning UNE-P and are looking to new technologies in order to succeed in the local phone business. In July 2004, AT&T announced that it met its previous commitment to deploy mass-market VoIP service in the top 100 MSAs by the end of 2004, and AT&T is now in 121 major markets.¹⁹ As a result of these changes in CLECs' business strategies, we can expect future migrations of UNE-P (and future UNE-L migrations) to plummet, especially since firms like AT&T and MCI were major purchasers of UNE-Ps. In New York, for example, based on December 2002 data, AT&T and MCI's share of the local

¹⁴ See, Glenn Britt, Chairman and CEO, Time Warner Cable, presentation at the Merrill Lynch Media & Entertainment Conference at 3, 21, September 28, 2004; *2004 Fact Report*, p. II-8.

¹⁵ See, *2004 Fact Report*, p. II-8.

¹⁶ See, *id.* at II-8, citing Cox executives.

¹⁷ See, *id.* at II-38 – II-39, citing various sources.

¹⁸ AT&T recently announced a reduction in the price of its CallVantage VoIP service from \$34.99 to \$29.99, see *AT&T Lowers Price of its Residential VoIP Service New Rate of \$29.99 Replaces Existing Promotional Offer*, AT&T Press Release, September 30, 2004.

¹⁹ See, *AT&T CallVantage Service Now Available in 100 Major Markets*, AT&T Press Release, July 12, 2004; *AT&T CallVantage Service Expands to 21 New Markets in Seven States in Nationwide Deployment*, AT&T Press Release, August 19, 2004.

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CLEC market was close to 60%.²⁰ This means that the demand for future UNE-P migrations can easily decrease in New York by 60%.

D. Wireless Displacement

18. Wireless competition is also having a significant negative impact on the demand for circuit-switched wireline telephony services, which, in turn, lowers the demand for incremental hot cuts in a post UNE-P environment. While wireless phones have been a reality for some time now, the pace of wireless displacement has accelerated due to continuing improvements in quality, new service offerings based on new technologies and attractive pricing plans. The Declaration of Messrs. Hassett and Woodbury also provide a detailed discussion of the wireless competition that Verizon is facing, as does the *UNE Fact Report 2004*. Among the major findings from these reports are:

- Of the 161 million wireless users, 7-8% of them use wireless as their only phone and approximately 11 million primary access lines have been displaced.²¹ Analysts predict that by the end of 2008, 22 million access lines will have been displaced, representing approximately 13 percent of total access lines.²²
- Recent reports confirm the continued decline in wireless prices and some analysts have concluded that in 2003 wireless prices dropped below wireline prices for the first time.²³
- Currently in the wireline business bundled packages of local, long distance and vertical features at a flat monthly rate of approximately \$50 are the norm and wireless companies are offering similar packages at similar rates.²⁴ Even ignoring the added mobility benefit a user receives from wireless service, wireless prices are currently competitive with wireline bundled prices.
- There were approximately 700 million SMS messages being sent monthly and wireless data revenues have been steadily increasing as well.²⁵

²⁰ See, New York Public Service Commission, *Analysis of Local Exchange Service Competition in New York*, "New York Public Service Commission, data as of December 31, 2002, p. 9.

²¹ See, *2004 Fact Report*, p. II-29 at Table 8, citing various sources.

²² See, *id.* & II-30 at Figure 4, citing Lehman Brothers.

²³ See, *id.* at II-31, citing Needham.

²⁴ See, *id.* at II-32, Table 9.

²⁵ See, *id.* at II-36, citing The Yankee Group, Merrill Lynch, and UBS Investment Group.

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E. UNE-P Replacement Services

19. Another major development that impacts the number of incremental hot cuts that Verizon should be prepared to handle in a post-UNE-P world is the continued presence of a commercial alternative to UNE-P service arrived through voluntary commercial negotiation. Specifically, the presence of commercially available UNE-P replacements affects the number of incremental hot cuts in two ways. First, with respect to the embedded base, every UNE-P that is included in a commercial agreement means that Verizon needs to perform one less incremental hot cut. For example, if 20% of current UNE-Ps are included in a commercial agreement, the size of the embedded base that needs to be converted through a hot cut decreases by the same percentage.

20. Second, commercial agreements also affect the number of UNE-P migrations that would result in incremental hot cut in the future. With commercial agreements in place, CLECs would continue to purchase the UNE-P Replacement Services rather than UNE-Ls, so that the number of hot cuts that Verizon would be required to perform would be lower, all else equal.

21. To date, major CLECs such as MCI have signed agreements with ILECs and many other smaller CLECs have done so as well. MCI's agreement with Qwest in May 2004 calls for "incremental price adjustments" and extends through January 2007.²⁶ Earlier in the year, SBC Communications reached agreement with Sage Telecom that included a seven-year pact that would replace mandated UNE-P with a private commercial agreement.²⁷ In the same month that SBC and Sage signed an agreement, BellSouth signed an agreement with three carriers including Dialogica Communications Inc., International Telnet and CI2 for the provision of wholesale local phone services throughout the nine-state BellSouth region and indicated that since the FCC's call for

²⁶ See, *MCI and Qwest Reach Commercial Agreement for Wholesale Service*, MCI Press Release, May 31, 2004.

²⁷ See, *SBC, Sage Telecom Reach Wholesale Telecom Services Agreement*, SBC Press Release, April 3, 2004. Sage Telecom is the third largest CLEC in SBC's territory; the agreement will greatly reduce the number of incremental hot cuts that SBC will perform.

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negotiation of commercial agreements, it has executed nondisclosure agreements with over 60 telecommunications carriers.²⁸

22. Verizon has also signed agreements with CLECs, the impact of which will be to reduce the number of incremental hot cuts that it should be prepared to handle. On April 21, 2004 Verizon announced a general framework for commercial agreements with wholesale customers called Wholesale Advantage, which features customized, three-year agreements, restructured pricing and a number of high-value services not offered under the existing government-mandated plan.²⁹

23. To date, Verizon has signed several agreements with CLECs. For example, on August 25, 2004, it announced execution of a commercial agreement with Granite Telecommunications that will replace existing UNE-P arrangements serving mass market customers (including small business).³⁰

III. Hot Cuts

24. In the current environment, certain changes that customers and carriers make regarding local service provisioning may result in hot cut (or reverse hot cut) requests to Verizon. If the Commission determines that CLECs would not be impaired in some markets if Verizon no longer offers local switching as a UNE, then two different types of changes might occur:

- Migration: In the ordinary course of business, customers change carriers (reflecting churn) and sometimes carriers change their method of provisioning local service (e.g., move customers from UNE-P to facilities-based service). Some of these changes that did not require a hot cut in the past may require a hot cut in the post-UNE-P environment. Call this source of incremental hot cuts "migration" incremental hot cuts.
- Conversion: Some portion of the current embedded base of UNE-P customers may be migrated during the Conversion Period to UNE-L service, and that migration may also give rise to additional hot cuts.

I include both of these types of hot cuts in my analysis.

²⁸ See, *BellSouth Signs Contracts for Long-Term Commercial Agreements with Three Wholesale Carriers*, BellSouth Press Release, April 29, 2004.

²⁹ See, *Verizon Announces New Framework for Commercial Agreements with Wholesale Customers*, Verizon Press Release, April 21, 2004.

³⁰ See, *Verizon and Granite Telecommunications Sign Commercial Agreement for Wholesale Services*, Verizon Press Release, August 25, 2004.

A. Migration Hot Cuts

1. Current Hot Cuts

25. Today, when a CLEC orders UNE-P service to migrate a Verizon retail customer to its own retail service, Verizon does not perform a hot cut. Nor does Verizon perform a hot cut if a customer switches between UNE-P CLECs or from a UNE-P CLEC to Verizon's retail service. (A hot cut would be required, however, for a migration between a UNE-P CLEC and a UNE-L CLEC.) Verizon also does not perform a hot cut when a customer switches between Verizon and a CLEC providing resold Verizon service or between two CLECs providing resold Verizon service. Similarly, Verizon does not perform a hot cut when a customer migrates between a resale-based and a UNE-P-based CLEC or when a CLEC changes its wholesale service to UNE-P from resale (or vice-versa). In all of those cases (i.e., all of the cases where a hot cut is not required), Verizon remains the switch provider.

26. Essentially, a hot cut (or reverse hot cut) must be performed only if a customer's change in service provider entails a change in the switch providing dial tone to the retail customer but no change in the loop. A change in both the loop and switch that serves the customer—such as would be expected for migration to or from a facilities-based or intermodal service provider—requires (from the perspective of frame work and coordination) the same task as a new connection or disconnection—not a hot cut. A hot cut is unnecessary because the loop and switch that will serve the customer can be provisioned while the old arrangement is still in place.

27. If UNE-P were eliminated, however, CLECs would have to migrate to other forms of provisioning local service to their customers, and to the extent that they migrate to UNE-L (rather than switching to resale or fully-facilities-based provisioning), additional hot cuts would be required that were not required in a UNE-P world. Hot cuts would be required for retail-to-UNE-L migrations and for UNE-L-to-UNE-L migrations, and reverse hot cuts would be required for UNE-L to Verizon-retail migrations, since in each of these cases, the end user would be changing switch providers but not the loop provider (which would remain Verizon).

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28. Currently, the flow of hot cuts is equal to the flow of migrations involving UNE-L CLECs, excluding those winbacks that for operational reasons may have to be provisioned through disconnect/reconnect activity rather than hot cuts. Volumes of hot cuts, therefore, depend to a large extent on customer “churn”—the fraction of customer lines that change local service suppliers in a given month. The number of hot cuts is not equal to customer churn, however, for three key reasons:

- Some Verizon retail customers move out of Verizon serving territory, or discontinue service for other reasons (death, non-payment, etc.).
- Some Verizon retail customers switch to intermodal providers of wireless service, cable telephony, voice-over-Internet services, or other facilities-based CLECs.
- Some Verizon retail customers switch to CLEC UNE-P or CLEC resale services.

Each of these three types of migrations is counted as churn from Verizon retail service’s perspective, but none of them results in hot cuts.

29. Currently, the volume of hot cuts is approximately equal to the number of lines migrating from Verizon’s retail service to the retail service offered by a CLEC using UNE-L, plus the portion of the lines that Verizon wins back from a CLEC using UNE-L for which a reverse hot cut is required. A small number of additional hot cuts can arise when a customer of a UNE-P or resale CLEC migrates to a UNE-L CLEC because the identity of the switch provider changes from Verizon to the CLEC.

30. In a post-UNE-P world, the volume of incremental hot cuts is approximately equal to those that **would have gone** to or come from a UNE-P arrangement. In Exhibit 3, I present a more detailed discussion describing what constitutes incremental hot cuts for purposes of my Declaration.

B. Conversion Hot Cuts

31. If the Commission finds that CLECs would not be impaired without access to unbundled local switching for mass-market customers then some of the embedded base of UNE-P lines may have to be converted to some other arrangement. If UNE-Ps in the embedded base are converted to resale or some form of commercial agreement, those UNE-Ps would not need a hot cut. Similarly, if UNE-Ps in the embedded base are

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converted to a full facilities-based arrangement, such as wireless, cable telephony, or VoIP, those UNE-Ps would not need a hot cut. Only the UNE-Ps in the embedded base that are converted to an arrangement using UNE-Ls would require a hot cut.

32. For purposes of my incremental hot cut calculations, three conservative scenarios are considered for the conversion of the embedded base of UNE-Ps. Under each scenario, the conversion is calculated so that over the 12-month period the amount being converted each month is the same. The size of the embedded base is based on data as of June 2004. The use of June 2004 data is conservative since the size of the embedded base will likely be lower when the conversion begins due to the market developments mentioned above and described in the previous Section in more detail.

IV. Data Analysis

A. General Approach To Arrive at the Number of Incremental Hot Cuts and Workers at the Verizon Footprint Level

33. In this declaration, I provide calculations of incremental hot cuts for the Verizon footprint, see Exhibits 1 and 2. My calculations are based upon several conservative scenarios that make different assumptions about the portion of the embedded base of UNE-P lines that would be hot cut to a circuit switch in a post-UNE-P environment. As noted above, I am not predicting that these volumes of hot cuts will occur and given developments in the market it is unlikely they will. Instead, these calculations provide a range of incremental hot cuts that are used to demonstrate the scalability of Verizon's hot cuts processes even in the unlikely event a material increase in hot cut demand were to occur.

34. Based on these calculations, Verizon ran the FLM model for nine states to arrive at incremental workers required. These nine states represent approximately 88 percent of Verizon's UNE-P lines. Because of the complexity of the FLM model and the time and data gathering effort that would be required to run the model in the remaining 17 states, I estimated a statistical relationship between the additional workers required in the nine states and a number of independent variables such as incremental hot cuts. I used this statistical relationship to predict the number of workers required in these 17 states given

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my calculation of incremental hot cuts and other factors. I provide a detailed discussion of my statistical analysis in Exhibit 4.

B. Incremental Hot Cuts

35. In this declaration, I use the most recent 6-month average of UNE-P migrations (January 2004 to June 2004) as the basis for the migrations incremental hot cuts over the 12-month conversion period. This measure is conservative because data through June of 2004 show that the growth in UNE-P migrations has slowed considerably or fallen while July and August data show UNE-P migrations declining at a rapid rate. For example, for the Verizon footprint while the average growth rate for UNE-P migrations was [BEGIN PROPRIETARY] [END PROPRIETARY] from January 2004 to June 2004, the average for July and August was [BEGIN PROPRIETARY] [END PROPRIETARY], and there has also been a decline in UNE-P migrations for every month since April 2004. While the July and August data were not available in time for me to use them formally in my calculations or in the FLM runs, they do, however, reinforce the very conservative nature of my calculations based on data through June 2004.

36. For the embedded base, I use the current level of the embedded base (for June 2004) as the starting point for UNE-P conversions. While there is some uncertainty as to when the Commission would decide to start the conversion process, the recent data indicate that the embedded base is unlikely to differ significantly from its current level and, in fact, as explained above, it is more likely that the embedded base will be smaller than its current level due to the developments described in the previous Section.

37. During the conversion period, the embedded base is decreased by the number of conversions, winbacks and disconnects. In my calculations, I convert a portion of the embedded base (the portion varies based on the three different scenarios) to UNE-Ls over a 12-month period and that conversion is done in a way so that over the 12-month period the amount being converted in each month is the same.

38. My calculations are based upon several scenarios that make different assumptions about how much of the embedded base is converted to determine the number of

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incremental hot cuts that Verizon might perform in a post-UNE-P environment. By modeling three different scenarios, I provide a range of incremental hot cuts to demonstrate the scalability of Verizon's hot cut processes.

1. Modeling Scenarios

39. Instead of assuming that every UNE-P CLEC that was previously using UNE-P would use UNE-L in the post-UNE-P environment, I model several scenarios that make different assumptions about how much of the embedded base is converted. As discussed in Section II, intermodal competition, the presence of commercially-available UNE-P Replacement Services and the major CLECs' strategic shift away from UNE-P towards VoIP services for mass-market customers has increased to such an extent that it is not reasonable to assume that every UNE-P today will be converted to a UNE-L.

40. My calculations take these market developments into account by calculating incremental hot cuts under three scenarios, the results of which will provide a range of incremental hot cuts for each state over the 12-month period. As noted above, I am not predicting that these levels of hot cuts will occur. The Table below describes the three scenarios that I use in my calculations.

Table 1

Scenario Assumption	Scenario		
	A	B	C
Percent of embedded base that get converted to UNE-Ls	35%	65%	100%
Percent of historical UNE-P migration to include in migration incremental hot cuts	60%	60%	60%

41. In all three scenarios I assume that the historical UNE-P migration demand is reduced by 40% to take into account all the factors discussed above. This number is based on the announcement by major CLECs that they no longer view UNE-P as a viable business strategy and that they are planning to offer VoIP services instead. These carriers will thus reduce their demand for UNE-Ls in the post-UNE-P world, which will reduce the demand for migration incremental hot cuts.

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42. In fact, the 40% estimate is likely to be conservative. As mentioned above, New York data for December 2002 showed that AT&T and MCI's share of the local CLEC market was close to 60%.³¹ These carriers' announced shift away from a UNE-P strategy thus means that the demand for future UNE-P migrations would decrease in New York by 60%, before even considering the additional impact from intermodal competition.

43. I ran three scenarios under different assumptions about the proportion of the embedded base that is converted to UNE-L. The assumptions that 35 percent or 65 percent of the embedded base of UNE-Ps would be converted to UNE-Ls are based on the market considerations discussed above, but are likely to overstate the proportion of the embedded base of UNE-P lines that are likely to be converted and thus are likely to overstate the actual number of incremental hot cuts that Verizon will need to perform. The 100% scenario is modeled as the worst-case scenario. The fact that Verizon is capable of staffing a twelve-month conversion period under the worst-case assumption of full conversion of UNE-Ps to UNE-Ls means that the need for hot cuts should not be considered an impediment in the *TRO* process.

C. Results

44. The results from my data analysis are summarized in Exhibit 1 where I present the total incremental hot cuts and workers required for the entire Verizon footprint over the 12-month period for the three different scenarios and also provide a summary of the state results. In Exhibit 2, I provide a more detailed state analysis.

45. As can be seen in the exhibit, incremental hot cuts for the Verizon footprint ranges from approximately [BEGIN PROPRIETARY] [END PROPRIETARY] to [BEGIN PROPRIETARY] [END PROPRIETARY] and incremental workers range from approximately [BEGIN PROPRIETARY] [END PROPRIETARY] to [BEGIN PROPRIETARY] [END PROPRIETARY]. These results are based on the three different conservative scenarios, thus likely resulting in more incremental hot cuts than what the CLECs would actually request.

³¹ See, note 20.

D. Workforce Requirement

46. The workforce requirements for nine states (representing 88% of Verizon's UNE-P's) were determined by running the FLM. I used several statistical relationships to extrapolate the workforce requirements in the remaining 17 states from the incremental hot cuts for those states under the three scenarios.³² In Exhibit 4 I describe the methodology that I used and my results. As described in that Exhibit, the statistical models do quite well in predicting the actual (in-sample) workers from the FLM in the nine states.

V. Labor Supply Conditions

47. Current economic conditions suggest that it would not be difficult to expand Verizon's work force at the levels indicated above. First, because of force reductions in the telecommunications industry over the last several years, there is a large pool of experienced workers available to fill incremental staffing needs. For example, the *Financial Times* maintained a website tracking announcements of layoffs by major communications employers, which showed that between July 2000 and May 2002, the global telecom sector cut approximately 539,000 jobs.³³ Since that time, the trend has continued with major telephone companies in the U.S. announcing tens of thousands additional reductions.

48. For example, in September 2002, SBC announced a reduction of 11,000 jobs, in addition to the 10,000 jobs eliminated in the first three quarters of 2002. In the second half of 2002, WorldCom and Sprint announced reductions of 17,000 and 2,100 workers, respectively.³⁴ In early 2003, AT&T announced a workforce reduction of 3,500 jobs

³² There are 30 states in the Verizon footprint. I did not extrapolate workforce requirements for 4 states in which current UNE-P demand was non-existent or negligible.

³³ See, <http://news.ft.com/ft/gx.cgi/ftc?pagename=View&c=Article&cid=FT3MOCS3OPC>, the FT.com Telecoms job cuts watch, last updated May 14, 2002. This figure includes telecom operators, cable operators and network equipment providers, categories that have been particularly hard hit.

³⁴ See, Forbes.Com Layoff Tracker Archive; "WorldCom layoffs continue," *The Clarion-Ledger Business*, August 29, 2002 and "Sprint Disconnects 2,100 Workers," CBSNews.com.

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followed by Verizon offering a buyout package to over 21,000 employees, about 10 percent of its work force.³⁵

49. According to the U.S. Bureau of Labor, the unemployment rate for the telecommunications industry was 3.9 percent or approximately 53,000 workers as of August 2004.³⁶

50. Second, because the qualifications for these positions are relatively modest, Verizon would not be limited to hiring experienced *telecommunications* workers. An analysis of current unemployment statistics for the United States shows evidence that qualified job seekers are available in numbers far exceeding those that would be required by Verizon. U.S. unemployment across all industry segments has risen from about 5.15 million in October 2000 to 7.94 million in August 2004.³⁷ Thus, there are approximately 2.79 million more people seeking work today in the U.S. than there were at the end of the telecom boom in 2000.

VI. Conclusions

51. In my Declaration I presented calculations of incremental hot cuts based on three different conservative scenarios. These calculations of incremental hot cuts are not forecasts of what CLECs are likely to request of Verizon; rather they are used simply to assess the scalability and workforce requirements. The results show that under conservative assumptions, Verizon is prepared to handle the additional hot cut requests.

52. Market, technological and regulatory trends all point to reductions in the number of incremental hot cuts that CLECs may request. The acceleration of competing technologies, such as VoIP and wireless, combined with the existence of commercial contracts make it likely that my calculations of incremental hot cuts are greater than what Verizon would likely experience.

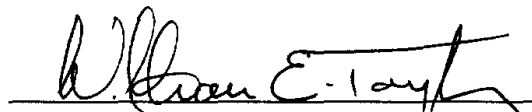
³⁵ See, "AT&T to slash 3,500 jobs," *The San Francisco Chronicle*, January 7, 2003 and "21,600 workers take buyouts from Verizon," www.eagletribune.com, November 18, 2003.

³⁶ Bureau of Labor Statistics, U.S. Department of Labor.

³⁷ *Id.*

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on October 1, 2004


Dr. William Taylor
NERA

**DECLARATION OF WILLIAM E. TAYLOR
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EXHIBIT 1

REDACTED – FOR PUBLIC INSPECTION

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EXHIBIT 2

REDACTED – FOR PUBLIC INSPECTION

REDACTED – FOR PUBLIC INSPECTION

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EXHIBIT 3

EXHIBIT 3

Table 1 shows all customer migrations that generate hot cuts under the current rules (i.e., where UNE-P is available).

Table 1

Customer Migrations Generating Hot Cuts under Current Rules

FROM\TO	Verizon Retail	CLEC FB	CLEC UNE-L	CLEC UNE-P	CLEC Resale
Verizon Retail			X		
CLEC FB					
CLEC UNE-L	R		X	R	R
CLEC UNE-P			X		
CLEC Resale			X		

The table shows the Verizon work requirements for provisioning customer migrations from the arrangements shown in the row headings to the provisioning arrangements shown in the column headings. Thus, the first cell in the row labeled "CLEC UNE-L" relates to customer migrations from UNE-L CLECs (the row) to Verizon Retail (the column.) "FB" refers to facilities-based provisioning, which, for purposes of this table, means a CLEC or other carrier that uses its own loop and switch. An "X" indicates an ordinary hot cut and an "R" indicates a reverse hot cut.

The first thing that should be noted is that the table (considered as a matrix) is symmetric about its main diagonal (from upper-left to lower-right), except that the Rs and Xs reverse. Symmetry reflects the fact that some form of hot cut is required whenever the ownership of the switch supplying dial tone to the customer changes. The exchange of Rs and Xs across the main diagonal simply follows the change in switch ownership: migrations to a Verizon switch represent reverse hot cuts while migrations to a CLEC switch represent ordinary hot cuts.

Second, migrations from (or to) CLEC A's UNE-L service to (or from) CLEC B's UNE-P-based or resale-based service may be generated by a customer's decision to change carriers (so that CLEC B serves the customer and purchases UNE-P or resale) or by CLEC A's decision to change the method by which it serves its customer. In both cases, the hot cut in question is a reverse hot cut, in the sense that a loop that terminates (ultimately) on CLEC A's switch is effectively shifted to terminate on Verizon's switch.

Finally, migrations from CLEC UNE-L to CLEC UNE-L presumably involve a customer's decision to change suppliers. Such a change entails a change in the switch supplying dial tone to the customer and thus requires a hot cut if the same loop is used.

1. Hot Cuts in a Post-UNE-P Environment

If switching is eliminated as a UNE, CLECs would no longer be able to provision service using UNE-P, except to the extent that Verizon chooses to make a UNE-P-like service available at market-based rates and on a commercial basis. Some CLECs might choose to provision service to some customers using UNE-L, so that Verizon would need to perform additional hot cuts, over and above the flow of hot cuts performed today under current rules. Table 2 illustrates the demand for hot cuts and reverse hot cuts assuming that all current UNE-P requests are treated instead as UNE-L requests. The organization of this Table and the abbreviations used are the same as for Table 1.

Table 2

Customer Migrations Generating Hot Cuts in the Post-UNE-P Environment

FROM TO	Verizon Retail	CLEC FB	CLEC UNE-L	CLEC UNE-P	CLEC Resale
Verizon Retail			X	X	
CLEC FB					
CLEC UNE-L	R		X	X	R
CLEC UNE-P	R		X	X	R
CLEC Resale			X	X	

In this table, CLEC UNE-P denotes customers previously served by UNE-P that would be served by UNE-L in the new environment. Hence, the rows (and columns) associated with CLEC UNE-L and CLEC UNE-P are identical. The matrix exhibits the same symmetry as in the previous table for the same reasons.

2. Incremental Hot Cuts in a Post-UNE-P Environment

The incremental demand for hot cuts would be the difference between the hot cuts performed under current rules (Table 1) and the hot cuts that would be performed if switching were eliminated (Table 2). Thus, additional hot cut demand could be calculated simply by subtracting each entry in Table 1 from the corresponding entry in Table 2. This is done in Table 3, below, where IX and IR denote incremental hot cuts and incremental reverse hot cuts respectively.

Table 3

**Customer Migrations Generating Incremental Hot Cuts in the Post-UNE-P
Environment**

FROM TO	Verizon Retail	CLEC FB	CLEC UNE-L	CLEC UNE-P	CLEC Resale
Verizon Retail				IX	
CLEC FB					
CLEC UNE-L				IX	
CLEC UNE-P	IR		IX	IX	IR
CLEC Resale				IX	

Because the only difference we consider is the availability of UNE-P, the only entries in this matrix are in the UNE-P rows or columns. That is, the only customer migrations that give rise to **incremental hot cuts** in a post-UNE-P environment are those that **would have gone** to or come from a UNE-P arrangement. Other types of frame work (e.g., connects and disconnects) do not appear in Table 3, despite the fact that these types comprise the bulk of current frame work. While such disconnects and connects are important, (i) they are not hot cuts and do not require coordination between the ILEC and CLEC and (ii) their volume is unchanged by the potential reclassification of UNE-P as UNE-L. They thus do not figure in our analysis of Verizon's incremental work requirements.

The data on UNE-P migrations that I used for my calculations includes all migrations to UNE-P from Verizon, UNE-L, UNE-P and resale. With the data on winbacks from UNE-P we have nearly all the incremental hot cut categories that are shown in Table 3 above.¹

¹ Technically, there is one component of incremental hot cuts excluded from UNE-P migrations and winbacks from UNE-P. A customer migration from UNE-P to resale in the future will require a hot cut, and these transactions are not included in current volumes of UNE-P migrations (which measure migrations to UNE-P from all sources) or winbacks from UNE-P (which measure migrations from UNE-P to Verizon). However, these migrations are likely to be insignificant because the vast majority of migrations occur from Verizon retail to UNE-P or winbacks from UNE-P. The number of migrations between UNE-P and resale are quite small.

